

## REMARKS

By this response independent claim 7, and consequently dependent claims 8-17, are pending. The Examiner's rejections, as they relate to each claim, are addressed below.

### 102(b)

The Examiner rejected claims 7-17 as being anticipated by Tsugita et al. Applicants traverse.

The claims are directed to a chitosan derived from fungal biomass which is greater than 85% deacetylated.

Tsugita et al. reference teaches a chitosan membrane derived from prawn shells. Tsugita et al. fails to specifically teach chitosan derived from fungus, let alone chitosan derived from fungus that is greater than 85% deacetylated. Therefore, the Tsugita et al. reference cited by the Examiner does NOT expressly teach the limitations provided in claims 7-17, i.e. the chitosan derived from a fungal source which is greater than 85% deacetylated.

In order to anticipate a claim a single reference must teach each and every limitation in the claim. The Tsugita et al. reference fails to do this, therefore, Applicants respectfully request that this rejection be withdrawn.

### 103(a)

The Examiner rejected claims 7-17 as being obvious in light of Tsugita et al. further in view of Okada et al. Applicants traverse.

As stated above, Tsugita et al. teaches a chitosan membrane derived from prawn shells. Tsugita et al. also specifically teaches that the chitosan membrane should have a deacetylation degree between 80% and 95% (column 4, lines 3-6). Moreover, Tsugita et al. states that if the deacetylation degree falls outside of the 80%-95% range the intended membrane will not work (column 4, lines 6-9). Thus, it is clear that Tsugita et al. considers the specific degree of deacetylation of the chitosan to be essential.

Okada et al. teaches isolating chitin (not chitosan) from fungal biomass. In the background of Okada et al. there is a single statement providing that chitosan is generally about 80% deacetylated (column 1, line 33), and Okada et al. fails to disclose anything further relating to specific deacetylation degrees.

Applicants assert that one of ordinary skill in the art would NOT have been motivated to combine Tsugita et al., which teaches chitosan derived from shell fish and which requires a specific deacetylation degree of between 80%-95%, with the general teachings of Okada et al. This is because the Tsugita et al. reference requires that the membrane has a degree of deacetylation between 80%-95%. Okada et al. discloses that chitosan generally has about 80% deacetylation levels, and one attempting to make the Tsugita et al. reference would, therefore, not be motivated to use the 80% material disclosed in Okada et al. for the specific material required by Tsugita et al. Therefore, there is no motivation to combine the references and there is definitely NOT a motivation to produce Applicants invention, which specifically provides for chitosan derived from fungal biomass which has a deacetylation degree of greater than 85%. Therefore, Applicants respectfully request that this rejection be withdrawn.

On the basis of the foregoing, Applicants believe the claims are in a condition for allowance. Applicants' undersigned attorney invites the Examiner to contact her with any questions.

Respectfully submitted,

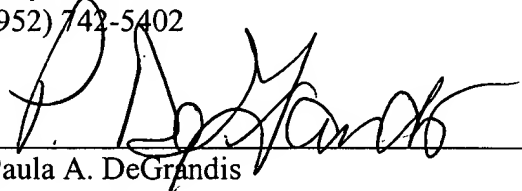
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